In the Claims

Claim 1 (Previously presented): A resistor comprising:

an insulating substrate having first and second opposite flat surfaces and having a shape and a composition;

a first resistive foil having a low TCR of 0.1 to 1 ppm/°C and a thickness of 0.03 mils to about 0.7 mils cemented to the first flat surface with a cement;

the first resistive foil having a pattern to produce a desired resistance value;

a second resistive foil having a low TCR of 0.1 to 1 ppm/°C and a thickness of 0.03 mils to 0.7 mils cemented to the second flat surface, the second resistive foil connected to the first resistive foil, the first resistive foil and second resistive foil having approximately equal resistance values and providing approximately equal power dissipation on both surfaces of the substrate thereby reducing temperature gradients across the substrate, preventing bending of the insulating substrate, and avoiding resistance change associated with bending;

the insulating substrate having a modulus of elasticity of 10×10^6 psi to 100×10^6 psi and a thickness of 0.5 mils to 200 mils;

the first resistive foil, pattern, and insulating substrate being selected to provide a cumulative effect of reduction of resistance change due to power.

Claim 2 (Previously presented): The resistor of claim 1 wherein the shape of the insulating substrate is selected to provide the cumulative effect of reduction of resistance change due to power.

Claim 3 (Previously presented): The resistor of claim 1 wherein the composition of the insulating substrate is selected to provide the cumulative effect of reduction of resistance change due to power.

Claim 4 (Previously presented): The resistor of claim 1 wherein the thickness of the insulating substrate is selected to provide the cumulative effect of reduction of resistance change due to power.

Claim 5 (Original): The resistor of claim 1 wherein the TCR of the first resistive foil is selected to provide the cumulative effect of reduction of resistance change due to power.

Claim 6 (Original): The resistor of claim 5 wherein the first resistive foil is etched to form longitudinal and transverse strands in a pattern selected to reduce bending and provide the cumulative effect of reduction of resistance change due to applied power.

Claim 7 (Original): The resistor of claim 1 wherein the cement is selected to provide the cumulative to reduce the effect of resistance change due to power.

Claim 8 (Original): The resistor of claim 6 wherein the heat transmissivity of the cement is selected to provide the cumulative effect of reduction of resistance change due to power.

Claim 9 (Original): The resistor of claim 6 wherein the thickness of the cement is selected to provide the cumulative effect of reduction of resistance change due to power.

Claim 10 (Cancelled).

Claim 11 (Previously presented): The resistor of claim 1 wherein the TCR is determined for a temperature range from 25°C to 125°C.

Claim 12 (Previously presented): The resistor of claim 1 wherein the first resistive foil, pattern, and the insulating substrate are selected to provide the cumulative effect of reduction of resistance change due to power by offsetting change in resistance due to temperature changes in the first resistive foil with change in resistance due to stress after cementing the first resistive foil to the substrate.

Claim 13 (Previously presented): The resistor of claim 1 wherein an operating temperature for the resistor is greater than ambient temperature.

Claim 14 (Previously presented): A power resistor, comprising:

an insulating substrate having first and second opposite flat surfaces and having a shape and a composition;

a first resistive foil having a low TCR of 0.1 to 1 ppm/°C and a thickness of 0.03 mils to about 0.7 mils cemented to the first flat surface with a cement;

the first resistive foil having a pattern to produce a desired resistance value;

a second resistive foil having a low TCR of 0.1 to 1 ppm/°C and a thickness of 0.03 mils to 0.7 mils cemented to the second flat surface, the second resistive foil connected to the first resistive foil, the first resistive foil and second resistive foil having approximately equal resistance values and providing approximately equal power dissipation on both surfaces of the substrate thereby reducing temperature gradients across the substrate, preventing bending of the insulating substrate, and avoiding resistance change associated with bending;

the insulating substrate having a modulus of elasticity of 10×10^6 psi to 100×10^6 psi and a thickness of 0.5 mils to 200 mils;

the first resistive foil, pattern, and insulating substrate being selected to provide a cumulative effect of reduction of resistance change due to power; and

wherein the shape of the insulating substrate, the composition of the insulating substrate, and the TCR of the first resistive foil are selected to provide the cumulative effect of reduction of resistance change due to power.

Claim 15 (Previously presented): The power resistor of claim 14 further comprising a second resistive foil having a low TCR of 0.1 to 1 ppm/°C and a thickness of 0.03 mils to 0.7 mils cemented to the second flat surface, the second resistive foil connected to the first resistive foil, the first resistive foil and second resistive foil having approximately equal resistance values and providing approximately equal power dissipation on both surfaces of the substrate thereby reducing temperature gradients across the substrate, preventing bending of the insulating substrate, and avoiding resistance change associated with bending.